Diamatic

The choice of professionals

Operating manual

Diamatic 780PRO

Operating manual
Version 1.2

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EC DECLARATION OF CONFORMITY
in accordance with Appendix II sub A of Directive 2006/42/EC

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Declare under our sole responsibility that the machine as described below Conforms with the Health and Safety requirements of the European Directive of the machine Safety.

In case of changes to the machine without our written authorization this declaration loses its validity.

Model: ***Diamatic 780PRO*** ***Serial number:*** ***XXXXB***

1. satisfies the conditions set out in the Machine Directive (Directive 2006/42/EC); Low voltage directive (2006/95/EC, as last amended; EMC directive 2004/108/EC, as last amended)

2. satisfies the following harmonized standards:
NEN-EN 349, NEN-EN 418, NEN-EN 294 and NEN-EN 60204

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Michiel Kalisvaart

CE

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1. Introduction

It is important that all persons who are working with or maintaining this machine must read this manual carefully and understand it fully. Keep this manual near to the machine, so it can always be consulted.
Only authorized and trained personnel may operate this machine.

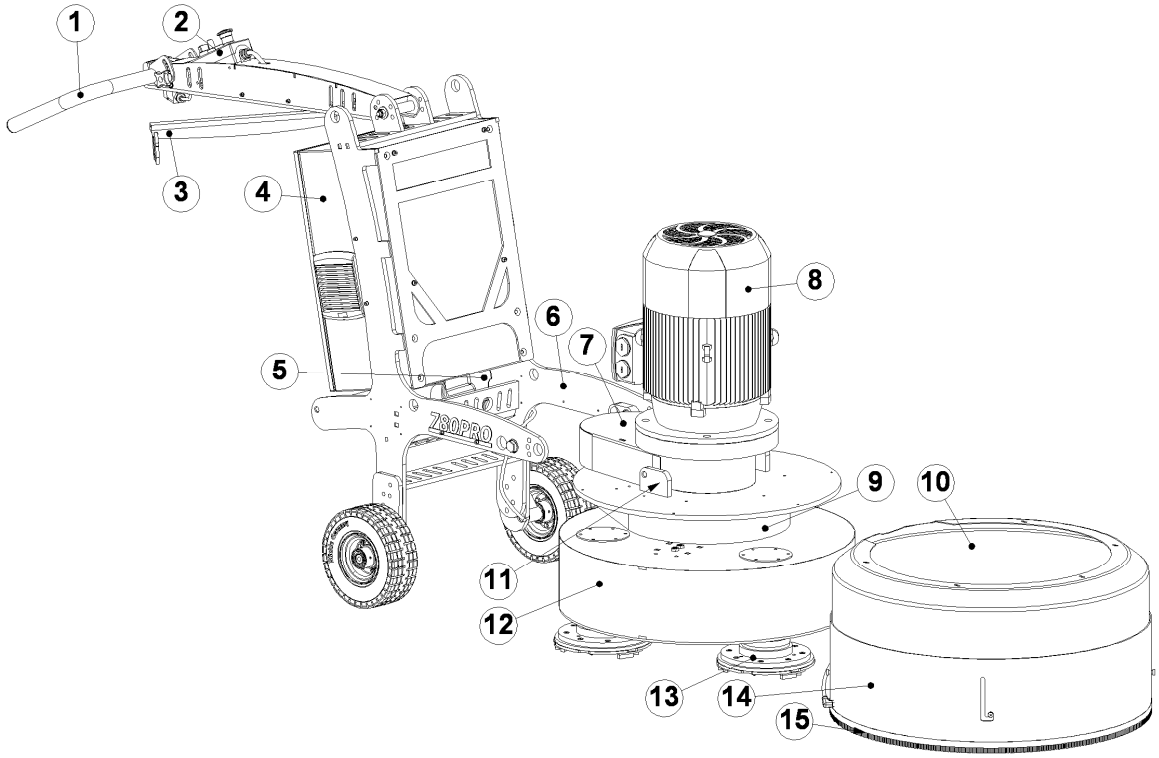
2. Machine description

The Diamatic 780PRO is an electrical driven planetary grinding machine. This is a three headed machine for levelling and polishing of floors.

Application

The Diamatic 780PRO can be used on almost any floor to plane, to make ready for coatings, or to remove coatings or glue residues.

1	Steer handle	6	Machine frame	11	Frame mounting eyes
2	Operating panel	7	Protection cover	12	Lower drive
3	Swing arm for dust hose	8	Drive motor	13	Grinding buffer
4	Electric control box	9	Upper drive	14	Dust floating shroud
5	Electric supply connection	10	Dust cover	15	Brush for shroud



Accessories

There are several types of wings that may be used on this machine.

BG707301	Wing red box 9 pieces 18/20
BG707302	Wing red box 9 pieces 30/40
BG707303	Wing red box 9 pieces 60/80
BG707304	Wing red box 9 pieces 120/150
BG707311	Wing green box 9 pieces 18/20
BG707312	Wing green box 9 pieces 30/40
BG707313	Wing green box 9 pieces 60/80
BG707314	Wing green box 9 pieces 120/150
BG707321	Wing blue box 9 pieces 18/20
BG707322	Wing blue box 9 pieces 30/40
BG200995/set	Wing PCD 1 x 1
BG200997/set	Wing PCD split
BG300117	Cutter plate 240mm
E07240	DIAMAG 240mm adapter plate
E06447	DIAMAG adapter plate for polishing dots

See the service manual for the complete list with all the wings, dots and spare parts.

3. Safety

Before operating the machine, the personnel who are going to use it must be familiar with the safety instructions given in this manual.
Keep this manual near to the machine, so that it may be consulted.

Safety precautions

- The surface to be treated must be swept clean to remove stones, screws etc.
- Never use the machine when the surface is not clear and if there is a risk of tripping.
- Make sure there is not any water on the surface to be treated.
- Remove any trailing electrical cables and or dust hoses from the surface to be treated
- Always use a dust collector
- Don't get disturbed during the activities.

Safety regulations

- Persons who are not operating the machine must not be permitted to stay in the surrounding area of the machine.
- Do not change anything on the machine. Always use cables that are approved and safety earthed. Make sure that the machine is equipped with an earthed connection, do not change this and always use earthed cables with an earthed plug.
- Connect main power supply cable to an installation with an earth leakage circuit breaker.
- Inspect and test the electrical components regularly. The electrical components have to satisfy the requirements that apply to these components.
- Always call a skilled electrician or your distributor when you have questions about the safety of the electrical components.
- Work on electrical equipment or operating materials may only be undertaken by a skilled electrician or by trained persons under the guidance and supervision of a skilled electrician as well as in accordance with the electrical engineering regulations.
- Pull out the main electric supply during inspections and maintenance on the machine.
- Never operate the machine when the surface is wet.
- Never use the machine in the rain.
- The machine contains rotating parts; because of this never pull the machine backwards with a turning motor.
- Be careful with the machine and pull or let down the machine slowly, big shocks can damage the electrical parts.

The following sticker is placed on the machine.

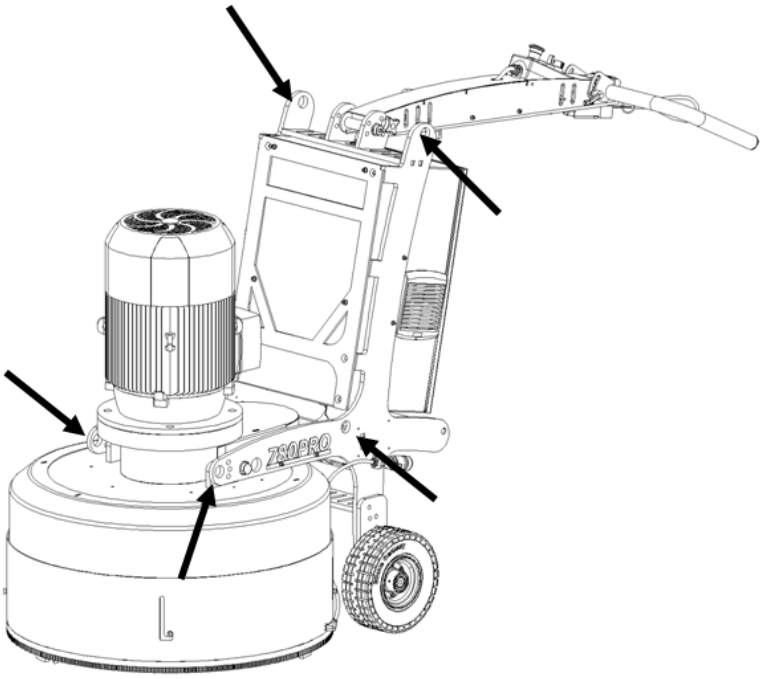
Meanings of these symbols are:

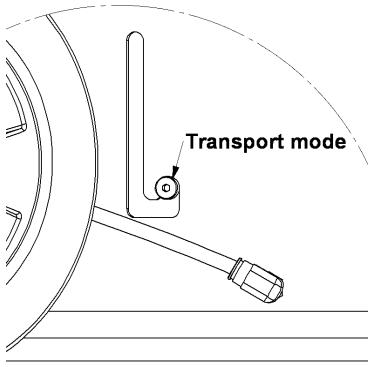
- Ear protection is obligatory
- Safety glasses with lateral protection are obligatory.
- CE-mark on this machine
- Safety shoes obligatory.
- Consult the manual before operating the machine

Personnel must tie back long hair and not wear loose clothing or jewellery including rings.
Wear gloves and dust mask whilst operating the machine.

Safety instructions

- Make sure the machine is clean and that the handgrips are dry and free of grease and oil.
- Make sure the dust brush is in good condition, this to reduce the dust.
- Pull out the main plug when changing the diamond wings
- Always wear gloves when changing the diamond wings
- It is not allowed to lift the machine without appropriate appliances as a lift or crane, lift the machine with a rope on the lifting eyes as showed in imagine mentioned below.
- Make sure the floating shroud is in transport mode when you transport the machine





4. Initial operations

Before using the machine it is important to inspect the machine.
It is not permitted to use the machine if the machine safety is not according the checkpoints below.

Checkpoints of electrical safety

- Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine.
- Electrical cables must be rolled entirely off of the reels.
- Any damage to electric cables is not permitted
- Use an electrical power supply connection with earth connection

Checkpoints of machine safety

Check if:

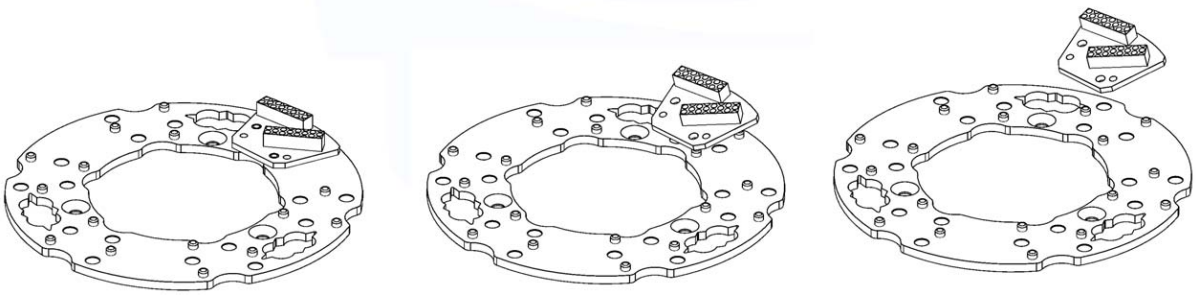
- The safety functions and operating functions work correct.
- The diamond wings are not damaged
- There are not any damage to the electrical components.
- There are not any loose nuts or bolts
- There is not any damage to the dust hose and if it is connected correctly.

Removing the diamond wings

- Read chapter 3 Safety on page 6 & 7
- Lay down the machine so it is laying on the metal support underneath the electrical box. Make sure the machine will not fall back down. A second person can stands on the handle to make sure the machine will not fall back down.
- Grab the diamond wings at the place where the gap in the Diamag plate is and roll the wing over so the wing can be taken of the plate.

Mounting the diamond wings

- Read chapter 3 Safety on page 6 & 7
- Lay down the machine so it is laying on the metal support underneath the electrical box. Make sure the machine will not fall back down. A second person can stands on the handle to make sure the machine will not fall back down.
- Clean the Diamag plates so the diamond wings will connect well to the plate.
- Place the diamond wings one by one on the Diamag plates.

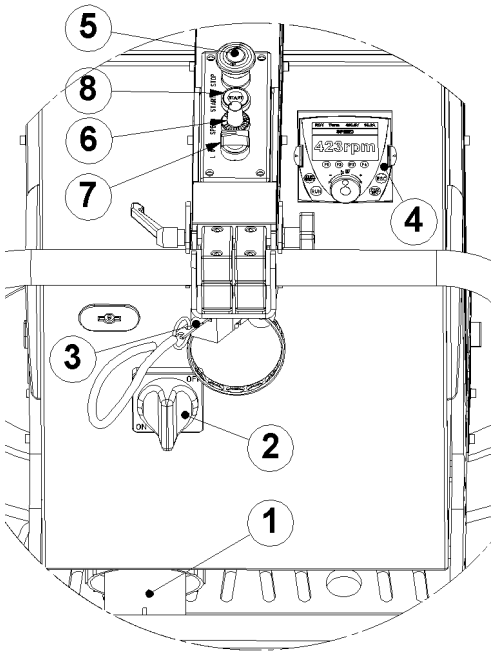


5. Operating

When operating the Diamatic 780PRO, the following additional safety instructions must be followed closely.

Switch on the machine

- Turn on the dust collector before switching on the machine and connect the dust hose to the machine.
- Make sure the electric component box is closed
- Connect the power supply to the connector (1)
- Turn the main switch (2) to the right.
- Stand behind the machine and hold the handle tight.
- Put the cord of the deadman switch (3) on to your arm or put it on to your clothing.
- Check the display (4) to make sure there are not any faults or warnings.
- Be sure that the emergency switch (5) is turned up.
- Turn the speed regulation button (6) counter clockwise so the machine will turn as slow as possible.
- Turn the Left/Right button (7) to one of the positions.
- To start the machine, push the green Start button (8).
- Raise if necessary the speed of the machine with the speed regulation button (6)



Switch off the machine

- Push the red (emergency) button (5) on the electrical box.
- Wait until the machine stops rotating.
- Pull out the cord of the deadman switch (3)
- Turn the main switch (2) to the left
- Pull the power supply out of the connector (1)
- Shut down the dust collector.

Operating during grinding

This machine will always have an even grinding result because of the planetary system.
However it is advised to keep the machine constantly in movement for an optimum grinding result.

For soft floors it is recommended to work on high disc speed, for hard floors it is recommended to grind with low speed of the tools.

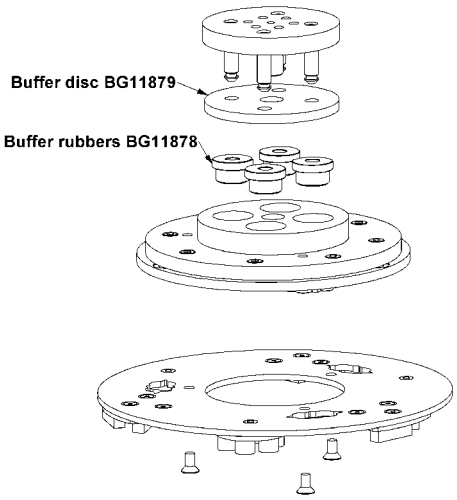
6. Maintenance

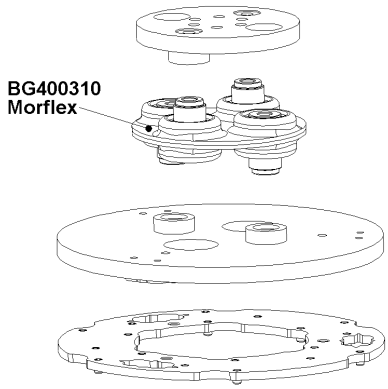
Work only with original Diamatic parts.

Dust in the electrical box can damage the frequency inverter; due to this the electrical box has to be cleaned every day from inside and outside. Clean the fans and filters from the box with compressed air and a vacuum cleaner.

Check regularly to see if the diamond wings are in good condition. Replace immediately when these are damaged or worn out.

Check weekly if the diamond plates doesn't have too much space in the buffers. If the diamond plate has too much space, replace the buffers.





Prevent premature wear by keeping the machine as dust free as possible, for these reasons clean the machine regularly with a vacuum cleaner.

Clean the machine every day with air and non-aggressive materials.
Never use water to clean the machine.

Store the cleaned and dry machine in a dry and humid free room. Protect the electrical motor from moisture, heat, dust and shocks

All repair work must to be done by qualified Diamatic personnel, this to guarantee a safe and reliable machine.

Any guarantee on the machine is automatically void when:

- Non original Diamatic parts and or diamond discs have been used
- Repair work is not done by qualified Diamatic personnel
- Changes, add items, or conversions are undertaken without the written permission from Diamatic.

7. Technical data

	Diamatic 780PRO 3x 230 volt	Diamatic 780PRO 3x 400 volt	Diamatic 780PRO 3x 480 volt
Power consumption	17,3 kW max.	17,3 kW max.	17,3 kW max.
Electrical consumption	3x 230 Volt	3x 400 Volt	3x 480 Volt
Frequency	60 Hz	50 Hz	60 Hz
Ampèrage connection	5 pole / 63 Ampere	5 pole / 32 Ampere	5 pole / 32 Ampere
Ampèrage consumption	51 Ampere	29,5 Ampere	29,5 Ampere
Length	2110 mm	2110 mm	2110 mm
Fold in	1150 mm	1150 mm	1150 mm
Width	780 mm	780 mm	780 mm
Height	1250 mm	1250 mm	1250 mm
Fold in	1320 mm	1320 mm	1320 mm
Weight machine	436 kg	436 kg	436 kg
Weight grinding head	300 kg	300 kg	300 kg
Diamond discs	3x Ø240 mm	3x Ø240 mm	3x Ø240 mm
Work width	750 mm	750 mm	750 mm
Rotation speed discs	400 - 1200 min^{-1}	400 - 1200 min^{-1}	400 - 1200 min^{-1}
Noise level	78dB(A)	78dB(A)	78dB(A)
Dust hose connection	75 mm Ø	75 mm Ø	75 mm Ø
Suitable filter unit	Contact Diamatic, we will assist you with a good advice		

Design and specifications are subject to change without notice by Diamatic